

REMARKS:

INTRODUCTION

In the Office Action mailed November 11, 2005, the Examiner noted that claims 1, 3, 5, 6, 8, and 10-12 were pending, and rejected claims 1, 3, 5, 6, 8, and 10-12. Claims 1, 5, 6, and 10 have been amended. Claims 11 and 12 are canceled and no new claims have been added. Thus, in view of the forgoing, claims 1, 3, 5, 6, and 8 remain pending for reconsideration which is requested.

No new matter is being presented, and approval and entry of the foregoing amendments and new claims are respectfully requested. The Examiner's rejections are traversed below.

REJECTION UNDER 35 U.S.C. §103(a)

In the Office Action at page 2, item 3, the Examiner rejects claims 1, 3, 5, 6, 8, and 10-12 as being unpatentable over Pott (U.S. Pat. No. 6,164,064) (hereinafter Pott) in view of Hirota et al (U.S. Pat. No. 6,233,925) (hereinafter Hirota). This rejection is respectfully traversed and reconsideration is requested.

A prima facie §103 rejection must both set forth a modification of a reference or references based on evidenced motivation and properly detail **that each and every claimed feature** is disclosed by the same modified reference or references.

Claims 1 and 6 recite "a purifying system . . . with a NO_x occlusion reduction type catalyst." As argued previously in the response on August 10, 2005, Pott does not disclose or suggest the claimed feature. As noted by the Examiner and as stated in column 1, lines 10-14, Pott is concerned with removing sulfur from a NO_x reservoir (emphasis added). The present invention is directed towards the regeneration of NO_x, which is an entirely different process than removing sulfur (emphasis added). Although both generally clean the exhaust system, the two processes are entirely different in the manner in which the process is performed. The prior art of Pott removes the harmful gas from the exhaust system, while the present invention reduces the destruction of NO_x and regenerates the cleaning capability. Therefore, Pott does not disclose each and every claimed feature and Hirota does not make up for this deficiency. As such, it is respectfully submitted that claims 1 and 6 are patently distinguishable over the prior art.

Additionally, the Examiner states on page 6, item 4, that "Since the NO_x reservoir catalyst in Pott has the functions to absorb and reduce a compound in the exhaust gas, it is at least obvious to one with ordinary skill in the art that Pott discloses a NO_x occlusion reduction type catalyst." It appears that the Examiner is further modifying the Pott reference without giving proper motivation. Merely stating that it would have been obvious that the prior art reference discloses the claimed feature, when the prior art in fact does not explicitly disclose the feature, is not sufficient. Not only must each and every limitation be present in the combined prior art, a prima facie §103 rejection must both set forth a modification of a reference or references based on evidenced motivation. It is improper to merely deem something obvious without any teaching/suggestion, or the taking of Official Notice. If the U.S. Patent and Trademark Office wishes to take Official Notice that the proposed structural and functional modification is notoriously well known, it is respectfully requested that supporting evidence be provided. The Federal Circuit has cautioned that an Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. In re Rouffet, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998). As such, it is respectfully submitted that claims 1 and 6 are patently distinguishable over the prior art.

Claims 1 and 6 further recite that "the condition of an EGR valve being totally closed" during the catalyst activation control operation. This feature is fully supported, for example, in the specification in paragraph 0081. Closing an EGR valve fully during catalyst activation control operations allows an exhaust valve temperature to be elevated to the maximum extent possible, while smokeless burning can be realized during rich-burn operation by performing EGR.

Rejecting claims 1 and 6, the Examiner states that Pott discloses, "the catalyst activation control operation means executes a burning control in the vicinity of the stoichiometric air-fuel ratio (curve III between point A and E) in the condition of an EGR valve being totally closed. . ." (page 3, item 3). The Applicant asserts that Pott clearly does not disclose or contemplate that an EGR valve is fully closed during a catalyst control operation. Pott does not even contemplate or discuss the use of an EGR valve, let alone that this valve is fully closed as recited in claims 1 and 6. Since an EGR valve may have a number of operating positions during a control operation, it is not proper to infer or implicitly suggest that this limitation is present in Pott. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is

not sufficient.” In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). Therefore, Pott does not disclose the recited limitation.

Additionally, Hirota does not teach or suggest the missing limitation. Hirota does not disclose an EGR valve being fully closed. Similar to Pott, Hirota does not mention or discuss an EGR valve as recited in claims 1 and 6. Therefore, Pott and Hirota do not disclose each and every limitation of the claim and it is respectfully submitted that claims 1 and 6 are patently distinguishable over the prior art.

Claims 1 and 6 also recite “a multi-stage injection and an early injection in the fuel injection into cylinders.” The Examiner asserts that Pott shows this claimed limitation. The Examiner states that Pott shows “a multi-stage injection and an early injection in the fuel injection into cylinders (lines 1-7 of column 4). The Applicant respectfully submits that Pott does not show this claimed feature. Pott discloses the “injection of fuel into the exhaust system” (column 4, line 6). This is not the same as injecting fuel into the cylinders of the engine. As such, it is respectfully submitted that claims 1 and 6 are patently distinguishable over the prior art.

Amended claims 1 and 6 further recite that controlling torque generation is accomplished “by an intake control to reduce the torque variation during the transition from the normal control operation to the catalyst activation control operation.” This feature is not taught or disclosed by Pott or Hirota. As discussed in the previous response on August 10, 2005, neither Pott nor Hirota teach, disclose, or suggest an intake control of a diesel engine for controlling the torque generation of the engine, as recited in claims 1 and 6 (emphasis added). Normal control is conventionally performed during EGR as well with throttle valve 23 wide open. Output control, rather, is carried out by adjusting the rate or amount of fuel flow. Here, since torque generation is adjusted through intake control, it is possible to suppress variations in torque generation during transition times between normal control and catalyst activation control. Both Pott and Hirota are completely devoid of any reference to the recited feature of controlling torque (emphasis added). As stated in column 4, lines 1-7, Pott is limited to the lowering of charge pressure and partial throttling, not controlling the torque. Hirota does not make up for this deficiency. As such, neither Pott nor Hirota contemplate torque control, let alone show the specific features of claims 1 and 6 (emphasis added). Therefore, Pott and Hirota do not disclose each and every feature of claims 1 and 6, and it is respectfully submitted that claims 1 and 6 are patently distinguishable over the prior art.

Furthermore, as noted above, the Examiner failed to address the Applicant’s arguments with regards to claims 1 and 6 pertaining to the above-discussed torque controlling features. As

noted in at least MPEP 707.07(f), the Examiner is required to answer and address all traversals. This requirement is in addition to any repetition of a previously held position and is required to allow the applicant a chance to review the Examiner's position as to these arguments and to clarify the record for appeal.

Additionally and as further noted in MPEP 707.07(f), a failure of the Examiner to address the applicant's traversals can be deemed a failure to rebut these arguments so as to admit that the arguments have overcome the rejection. At the very least, the failure to address the applicant's traversals would render the Examiner's decision to again reject the claims arbitrary and capricious and invalid under the Administrative Procedures Act, 5 U.S.C. § 706, the standard under which such rejections are reviewed in view of Dickinson v. Zurko, 527 U.S. 150, 50 USPQ2d 1930 (1999).

As such, since the Examiner has not addressed the applicant's traversals presented in the Amendment of August 10, 2005, it is respectfully requested that the Examiner withdraw the Final Office Action and issue a new Office Action addressing the Amendment of August 10, 2005.

Amended claims 5 and 10 recite that controlling the diesel engine "to reduce the torque variation during the transition from catalyst activation control operation to the rich-burn control operation or from the rich-burn control operation to the normal control operation." As discussed above, neither Pott nor Hirota discuss or contemplate reducing or controlling torque. Even more specifically, neither teach reducing the torque variation during a transitional phase from activation control operation to the rich-burn control operation, and vice versa. There is no suggestion or discussion in neither Pott nor Hirota of the need to limit the torque variation in the transitional period of engine control. As such, neither Pott nor Hirota disclose the claimed limitations in claim 5 and 10. Additionally, claims 5 and 10 depend directly from claims 1 and 6, respectively, and include all of the features of that claim plus additional features which distinguish over the prior art. Therefore, it is submitted that claims 5 and 10 are patently distinguishable over the prior art.

Claims 3 and 8 depend directly from claims 1 and 6, respectively, and include all of the features of that claim plus additional features which distinguish over the prior art. Therefore, it is submitted that claims 3 and 8 are patently distinguishable over the prior art.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, it is respectfully submitted that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

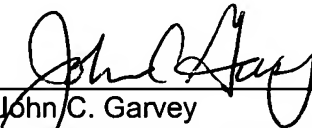
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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